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WeatherHub4 Quick Start Guide

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1 Introduction

The following quick start programming guide provides basic instructions for connecting your WeatherHub4 to your weather station and router and the Internet.

Note: Ambient Weather uses the terms WeatherHub4 and MeteoHub interchangeably. WeatherHub4 is the complete product, including the Linux computer (Silverstone DC01), and operating system. The operating system is referred to as MeteoHub, developed by www.MeteoHub.de .

Note: The WeatherHub4 Network Storage Device has been programmed by Ambient Weather before you receive it. For warranty replacement, please contact Ambient Weather directly. Ambient Weather warranties this product for 1 year.

The unit has been tested thoroughly before shipping.

2 Packing List

The packing list is as follows:

1. WeatherHub4 Linux Computer (DC01)
2. WeatherHub4 AC adaptor
3. Ethernet Cable
4. WeatherHub4 CD
5. Belkin USB2.0 Hub
6. D-Link Wireless N USB adaptor (optional, for WiFi connectivity)

3 Connections

Connect the WeatherHub4 Computer as follows (reference Figure 1):

1. Connect the weather station USB connection into the USB port on the back of the WeatherHub4.
   Note: If you have a weather station with a serial port, you will need a USB converter and serial cable available here:

   http://www.ambientweather.com/cousbto9sead.html and
   http://www.ambientweather.com/secoca6.html

   If your weather station does not support USB 2.0, you will need to connect the USB hub (included) between the weather station console and the WeahtherHub4, as shown in Figure 2.

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The following table summarizes the USB version for most weather stations:

Weather Station	USB
Ambient Weather (WS-1080, WS-1090, WS-2080)	1.X
Hideki (Honeywell, Meade)	1.X
Oregon Scientific	1.X
Davis Instruments USB	2.0
Rainwise USB	2.0
USB to Serial converters	Check your device

Use USB Hub for 1.X. No USB hub required for 2.0.

2. Connect the WeatherHub4 to your router or switch. Note: a cabled connection is required to configure the device. It can later be disconnected after the optional WiFi LAN is configured.
3. Connect the AC power adaptor to the WeatherHub4. The unit will turn on and the status light on the front of the WeatherHub4 will turn blue. Once the boot up sequence is complete, the status light will flash purple, then solid purple (approximately three minutes after power up).

NOTE: if you are connecting to a Wifi Network and purchased the optional Wireless N Nano, USB Adapter, connection and configuration of this device is outlined in Section 11, Configuring as a WIFI Device.

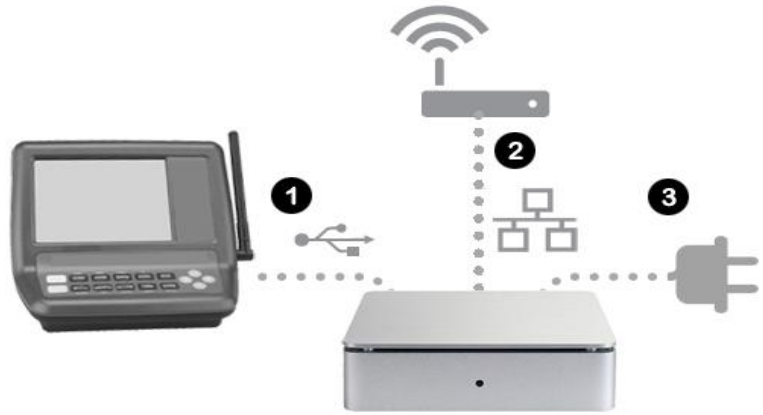

Figure 1: Connections

Figure 2: Optional USB Hub/Converter for 1.x Devices

4 IP Addressing

The WeatherHub4 is programmed from the factory for dynamic addressing (or DHCP). This allows to you to address the unit from any computer on your network without modifying the IP address.

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However, since it is dynamic, you will have to determine the address that was assigned to the unit.

To determine this address, load and install the IPScan tool provided on the CD. You can also download it here: http://www.download25.com/install/free-ip-scanner.html

For Mac and Linux users, visit:

http://www.angryip.org/w/Download

Select the **Start Scanning** button. After the scan is complete, locate the IP address associated with the Host Name **METEOPLUG (or METEOHUB)**. In the example figure below, the IP address was assigned to 192.168.1.77.

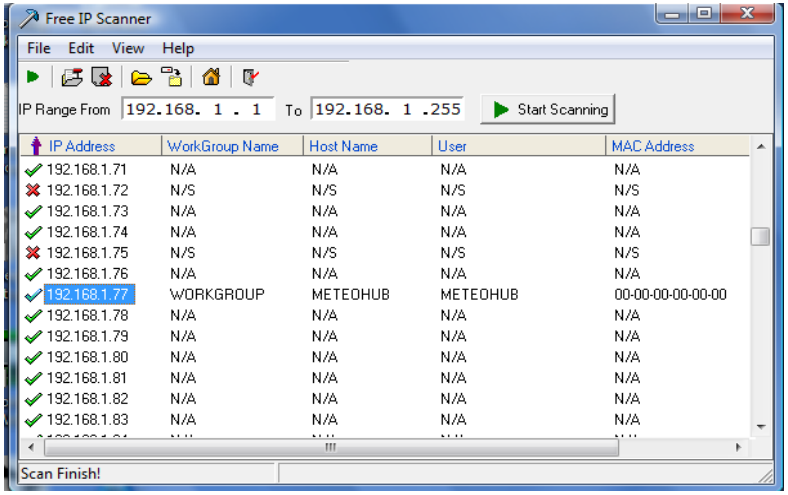

Figure 3

5 Browser Access

Enter this IP address into your web browser. In the example above, this would be http://192.168.1.77

When prompted for the Username and Password, enter:
Username: meteohub
Password: meteohub

6 System Info

From the Menu Bar, select **System Info**. Record the **Mac Address and System-ID** for warranty purposes.

From the Menu Bar, select **Maintenance**. Record the **Activation Code** for warranty purposes.

Store this information in a safe place for warranty service!

MAC:
System-ID (case sensitive):
Activation Code (case sensitive):

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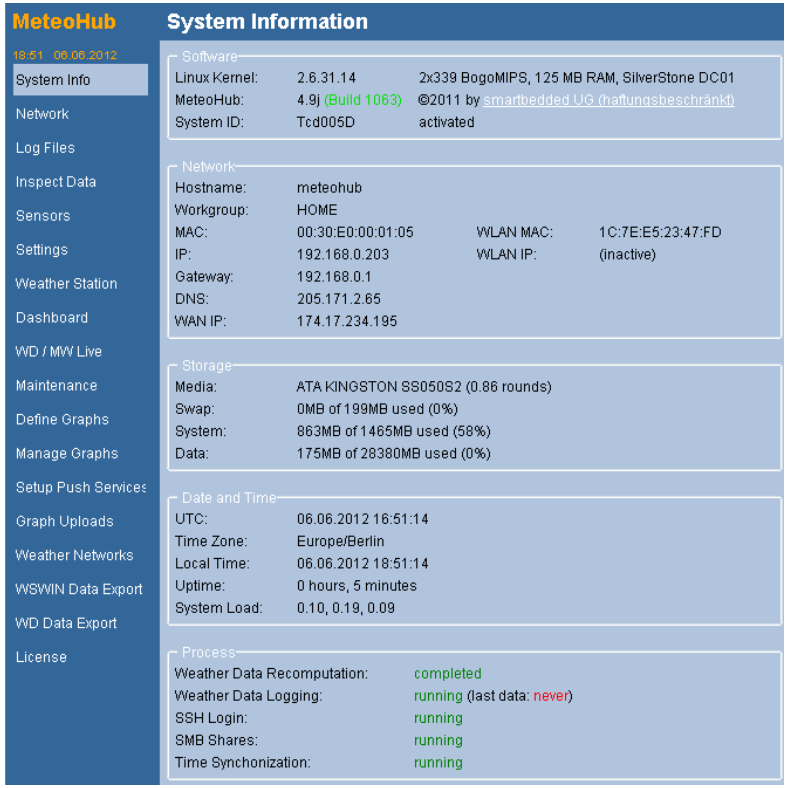

Figure 4

7 Weather Station Settings

Reference Figure 5. From the side Menu bar, select **Weather Station.**
Select your weather station type and then **Save**.

Note: If you own an Ambient Weather WS-1080, WS-1090 or WS-2080 weather station, choose the WH-1080, W-8681,… option.

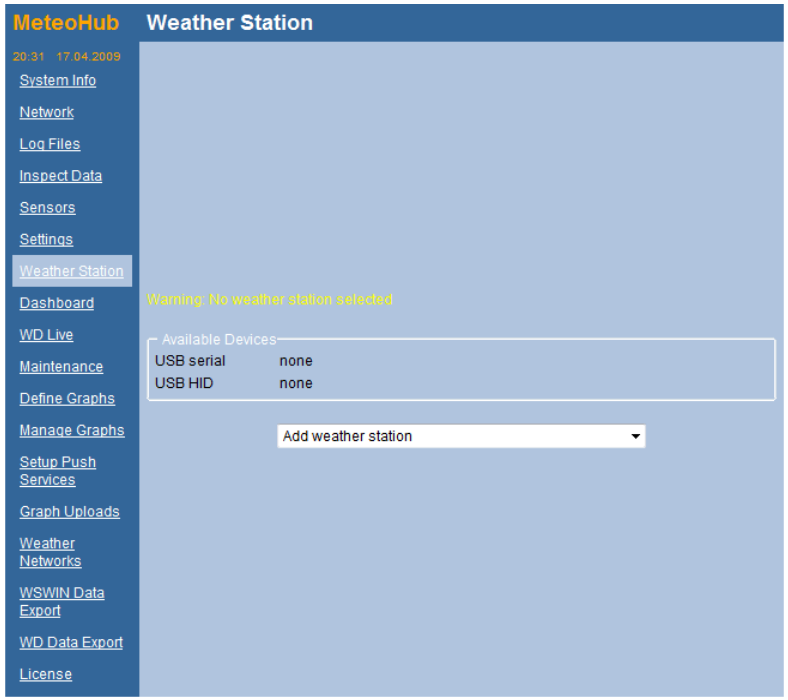

Figure 5

Reference Figure 6.

Name: Enter any name for your weather station (optional). This is helpful if you have more than one weather station.

Type of Connection: Under **Available Devices**, you will see your weather station connection type (if properly connected and

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communicating). Enter the Type of Connection (1) and Device (2) specified under available devices.

Note: if there are two devices listed, choose the first one in the list. If there are no devices listed, this will be grayed out, and is not required.

For other non-critical settings on this page, visit www.meteohub.de to download the full manual. Select **Save** when complete.

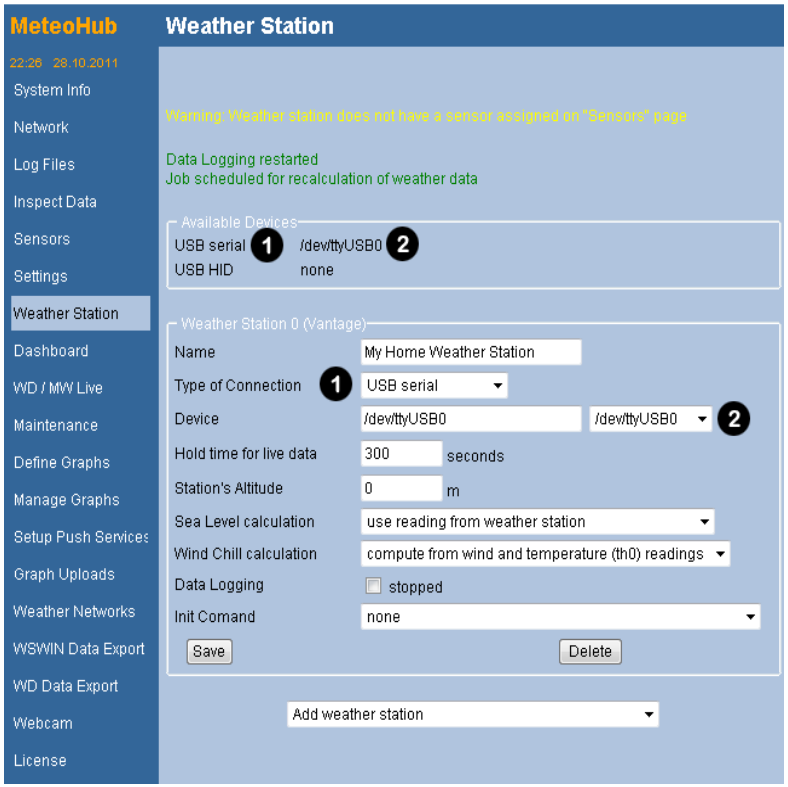

Figure 6

8 Sensor Settings

From the Menu Bar, select **Sensors**. Select the appropriate sensors for your system and add any additional sensors not listed.

Entering a **Name** for your sensor is optional.

In general, weather stations have the following default sensor IDs:

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Type	ID	Description
Indoor	thb0	t=temperature (indoor) h=humidity (indoor) b=barometer 0=no specific channel number Most weather stations have the indoor temperature, humidity and barometer built into the console.
Outdoor	th0	t=temperature (outdoor) h=humidity (outdoor) 0=no specific channel number All of the weather stations include an outdoor temperature and humidity sensor. The default is no channel number.
UV	uv0	uv=ultra-violet radiation 0=no specific channel number Most weather stations do not include a UV sensor and is optional.
Solar	sol0	sol=solar radiation 0=no specific channel number Most weather stations do not include a Solar Radiation sensor and is optional.
rain	rain0	rain=rain gauge 0=no specific channel number
wind	wind0	wind= anemometer 0=no specific channel number

Note that you can define multiple channel numbers if your weather station has more than one of each sensor (example, channel 1,2,3 outdoor temperature, or th1, th2, and th3). In most cases, these sensors are optional.

For some weather stations, this may take a while for all sensors to report in.

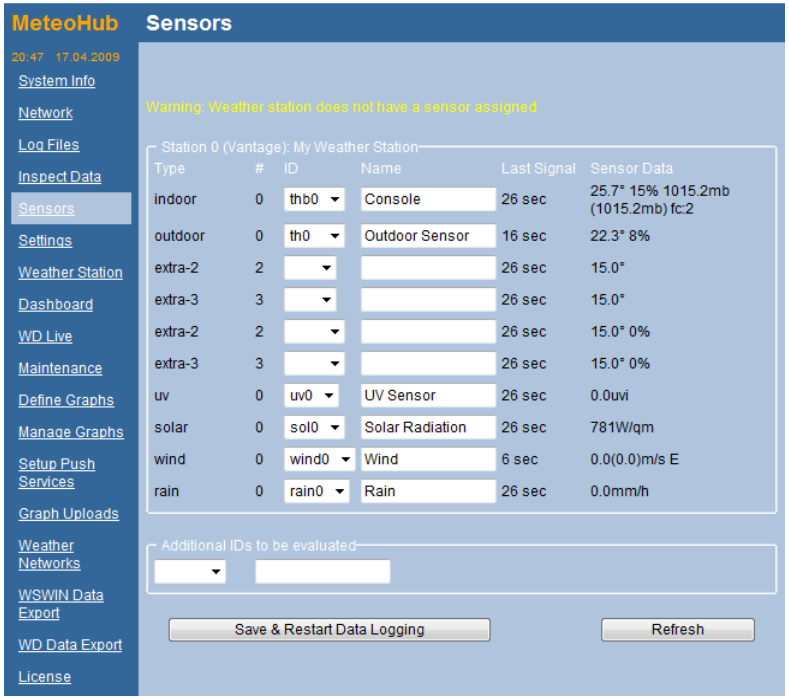

Figure 7

9 Weather Networks

Once all of the sensors have reported in, select **Weather Networks** from the menu bar.

The following example details the steps for registering your weather station with Weather Underground. For more detailed

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information on publishing to other servers, including your own website, please reference the MeteoHub user manual (referenced in the appendix).

Figure 8 describes how the WeatherHub4 connects to the various weather networks.

The WeatherHub4 communicates to a router or switch with a cabled or WIFI (with optional Wireless N Nano USB Adaptor) connection. This information is sent to the various weather networks via the World Wide Web.

The device sends the data via http write commands (similar to your web browser), using Port 80.

You can also FTP data to your own website.

Figure 8

10 Weather Underground Registration

1. To sign up your station with Weather Underground, visit: http://www.wunderground.com/wxstation/signup.html

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2. Enter your Weather Underground Station ID and Password.
3. Select the Weather Underground checkbox.
4. Enable rapid fire to update up to the second data.
5. Select **Save**
6. Enter the appropriate sensors you entered on the Sensor page for reporting to the weather servers. If the sensor list is not displayed, make sure you select **Save** first.
7. Select **Save to complete the registration.**

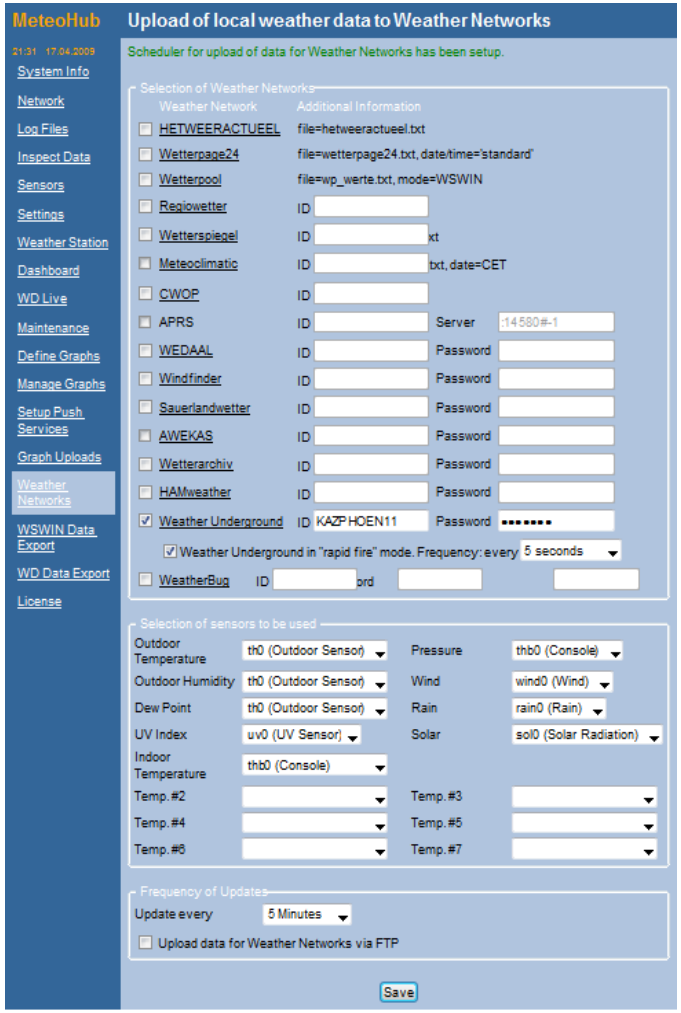

Figure 9

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11 Configuring as a WIFI Device

1. Keep the WeatherHub4 connected to your router or switch, as shown in Figure 11. You can disconnect after wireless configuration is complete.
2. Gracefully power down the WeatherHub4 by selecting the MeteoHub System **Shutdown** button on the Maintenance panel, as shown in Figure 10. The light on the front of the WeatherHub4 will turn off.

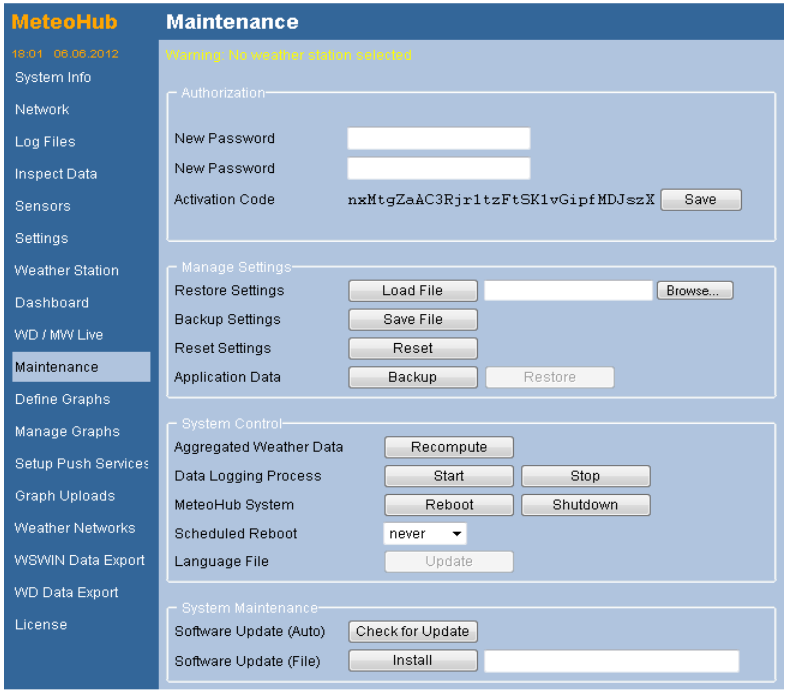

Figure 10

3. Connect the Wireless N Nano USB Adapter into the free USB port (there are two USB ports – one for the weather station and one for the adaptor) on the back of the unit, as shown in Figure 11.
4. Power up the WeatherHub4 by reattaching the power cable on the back of the unit.
5. Wait for the light on the front of the WeatherHub4 to turn solid purple. It is now ready for configuration.

Figure 11

6. Reference Figure 12. To configure the WeatherHub4 as a WIFI device, choose the WLAN Adaptor option, and select your WIFI network (SSID) from the list of available networks (you may need to refresh your browser to see the list of available devices).

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7. Enter the Encryption Type and Pass Phrase. For more information on your WIFI settings, consult your network administrator or WIFI router settings.

8. Record the WLAN IP address. You will need this after you disconnect from your LAN:

Connection	IP
LAN	
WLAN	

9. We recommend you statically allocate this address by deselecting the DHCP checkbox so it does not change.

10. Select **Maintenance** from the menu bar and select the **Shutdown** button. Verify the WeatherHub4 power is off by monitoring the light on the front of the unit.

11. Disconnect the LAN connection from your router to avoid conflict with the Wireless LAN (WLAN).

12. Power up the WeatherHub4 by pressing the switch on the back of the unit. After several minutes, the light on the front of the unit will turn purple and you can now access the device through the WLAN IP address obtained in the previous step.

NOTE: If you lose wireless connectivity, you can still connect via the Ethernet cable and scan for the device again as described in Section 4.

NOTE: You cannot “hot swap” the LAN and WLAN connections. You must power down the WeatherHub4 and disconnect the LAN connection prior to operating the WLAN connection.

Figure 12

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12 More Information

Note: Ambient Weather has licensed the WeatherHub4 for one weather station. For additional weather station licenses, visit www.meteohub.de

For technical assistance, please email info@meteohub.de

Questions or comments about this manual? We are always striving to improve our documentation. Please send your comments to support@ambientweather.com .

13 Liability Disclaimer

The electrical and electronic wastes contain hazardous substances. Disposal of electronic waste in wild country and/or in unauthorized grounds strongly damages the environment.

Reading the “User manual” is highly recommended. The manufacturer and supplier cannot accept any responsibility for any incorrect readings and any consequences that occur should an inaccurate reading take place.

This product is designed for personal use as indication of weather conditions. This product is not to be used for medical purposes or for public information.

The specifications of this product may change without prior notice.

This product is not a toy. Keep out of the reach of children.

No part of this manual may be reproduced without written authorization of the manufacturer.

Ambient, LLC WILL NOT ASSUME LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SIMILAR DAMAGES ASSOCIATED WITH THE OPERATION OR MALFUNCTION OF THIS PRODUCT.

14 Warranty Information

Ambient, LLC provides a 1-year limited warranty on this product against manufacturing defects in materials and workmanship.

This limited warranty begins on the original date of purchase, is valid only on products purchased and only to the original purchaser of this product. To receive warranty service, the purchaser must contact Ambient, LLC for problem determination and service procedures.

Warranty service can only be performed by Ambient, LLC. The original dated bill of sale must be presented upon request as proof of purchase to Ambient, LLC.

Your Ambient, LLC warranty covers all defects in material and workmanship with the following specified exceptions: (1) damage caused by accident, unreasonable use or neglect (lack of reasonable and necessary maintenance); (2) damage resulting from failure to follow instructions contained in your owner’s manual; (3) damage resulting from the performance of repairs or alterations by someone other than an authorized Ambient, LLC authorized service center; (4) units used for other than home use (5) applications and uses that this product was not intended.

This warranty covers only actual defects within the product itself, and does not cover the cost of installation or removal from a fixed installation, normal set-up or adjustments, claims based on misrepresentation by the seller or performance variations resulting from installation-related circumstances.

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